

IRRIGATED CROP PRODUCTION UPDATE – 2014

Conference wrap-up
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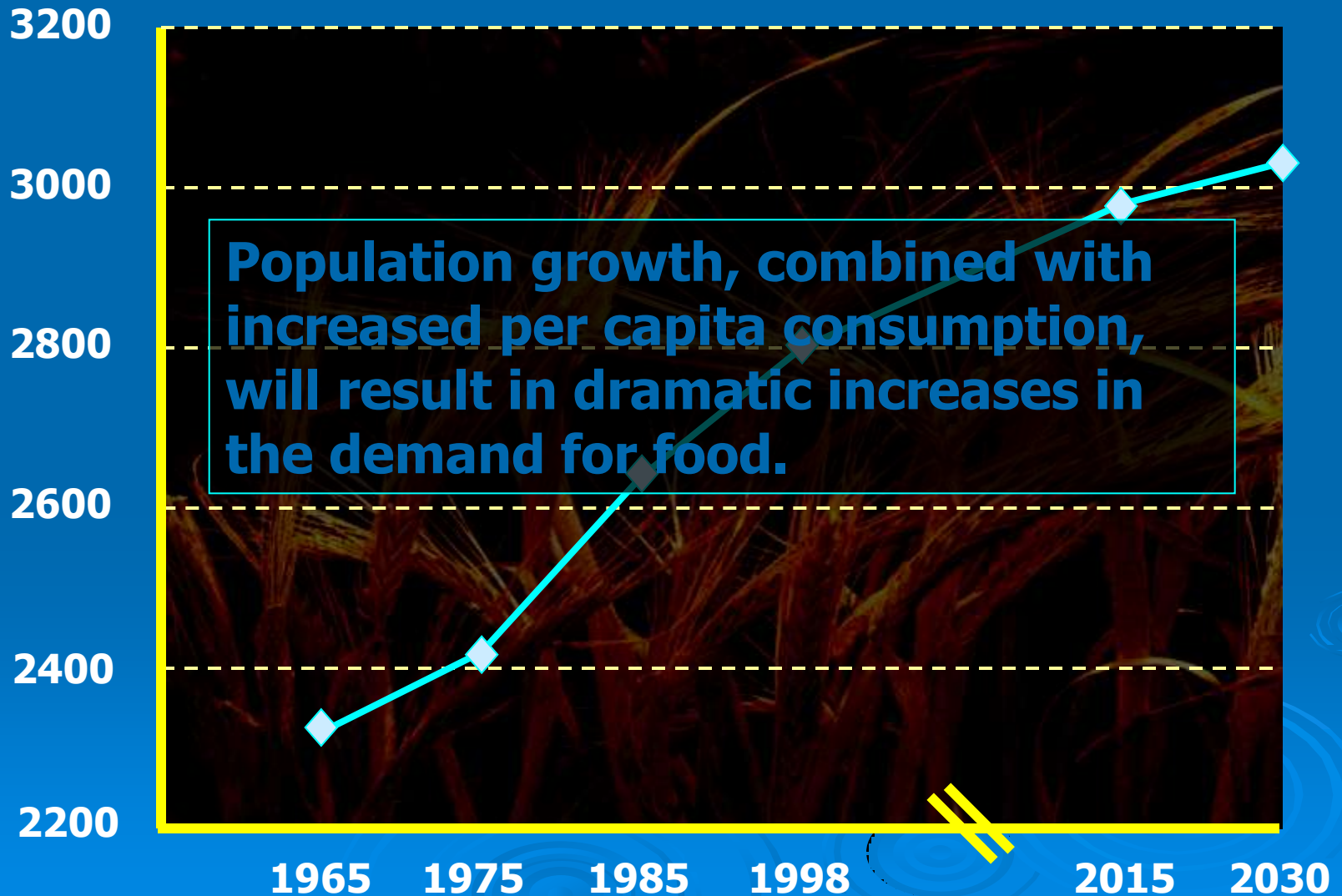
What Have We Learned?

- Advances in agronomy and technology
- Water management
- Fiscal realities and decision making
- Irrigated farm sustainability
- Lets look beyond the Farm Gate

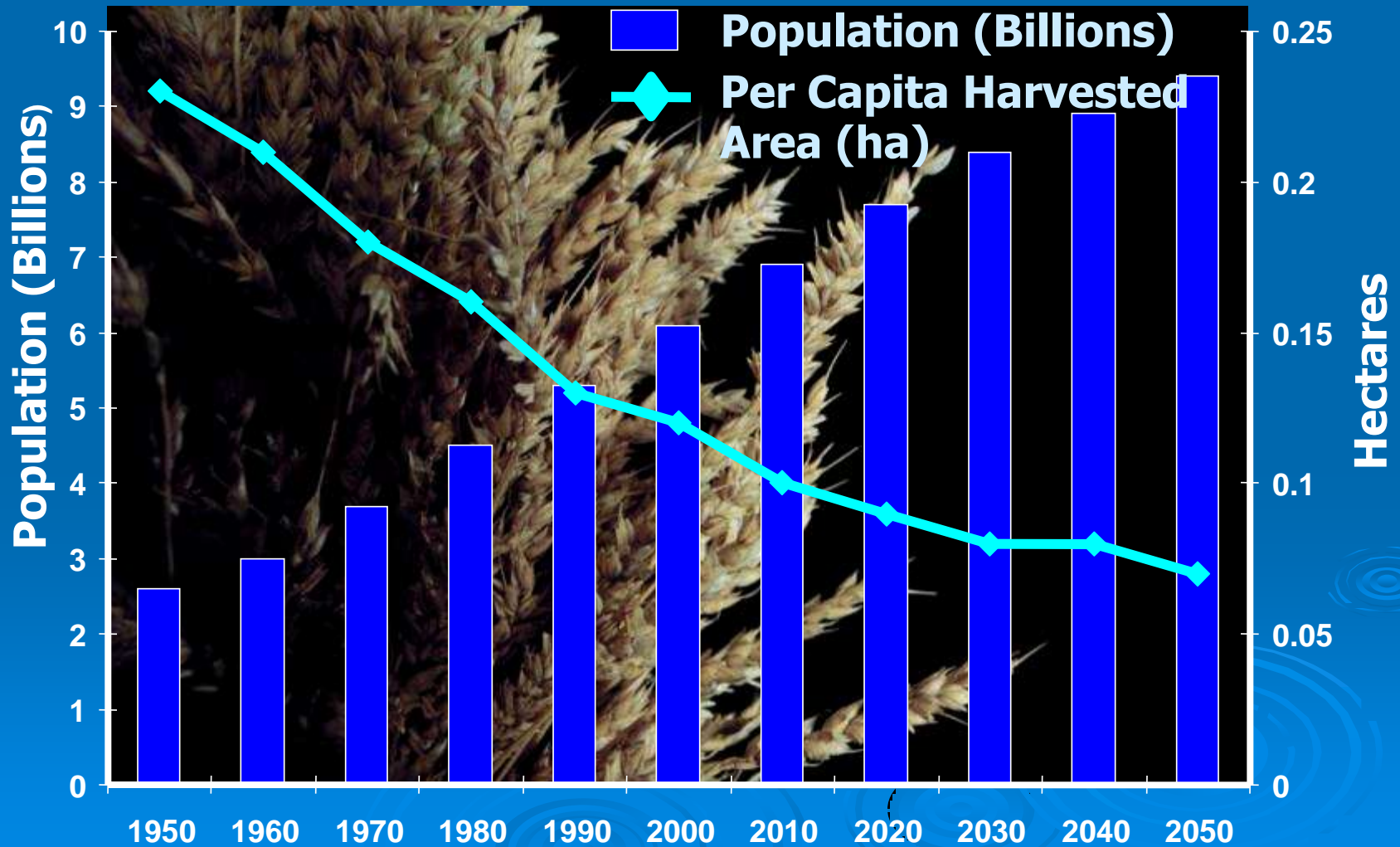
Alberta's Economy

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- ☐ Alberta's economy depends on having a strong, global export base.
 - ☐ Our economy is therefore shaped by what happens in the rest of the world.

Global Food Consumption (kcal/capita/day)

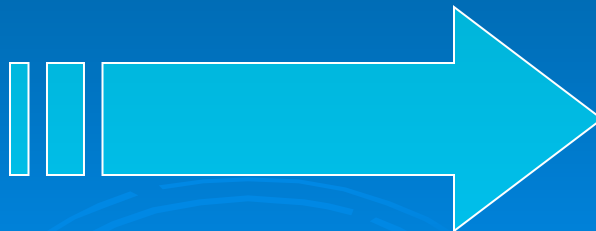


World's Grain Harvested Area



Changing Diets

- There is a shift towards more animal protein in the developing countries.
- Per capita meat consumption in developing countries is expected to increase from 26 kg. to 37 kg. in 2030.
- This is a result of increasing economic development and per capita incomes.



Implications to Cereal Production

- ❑ **1 kg of chicken meat requires:**
 - **3 kg of grain equivalents;**

- ❑ **1 kg of pork meat requires:**
 - **5 kg of grain equivalents**

- ❑ **1 kg of beef requires:**
 - **8 kg of grain equivalents;**



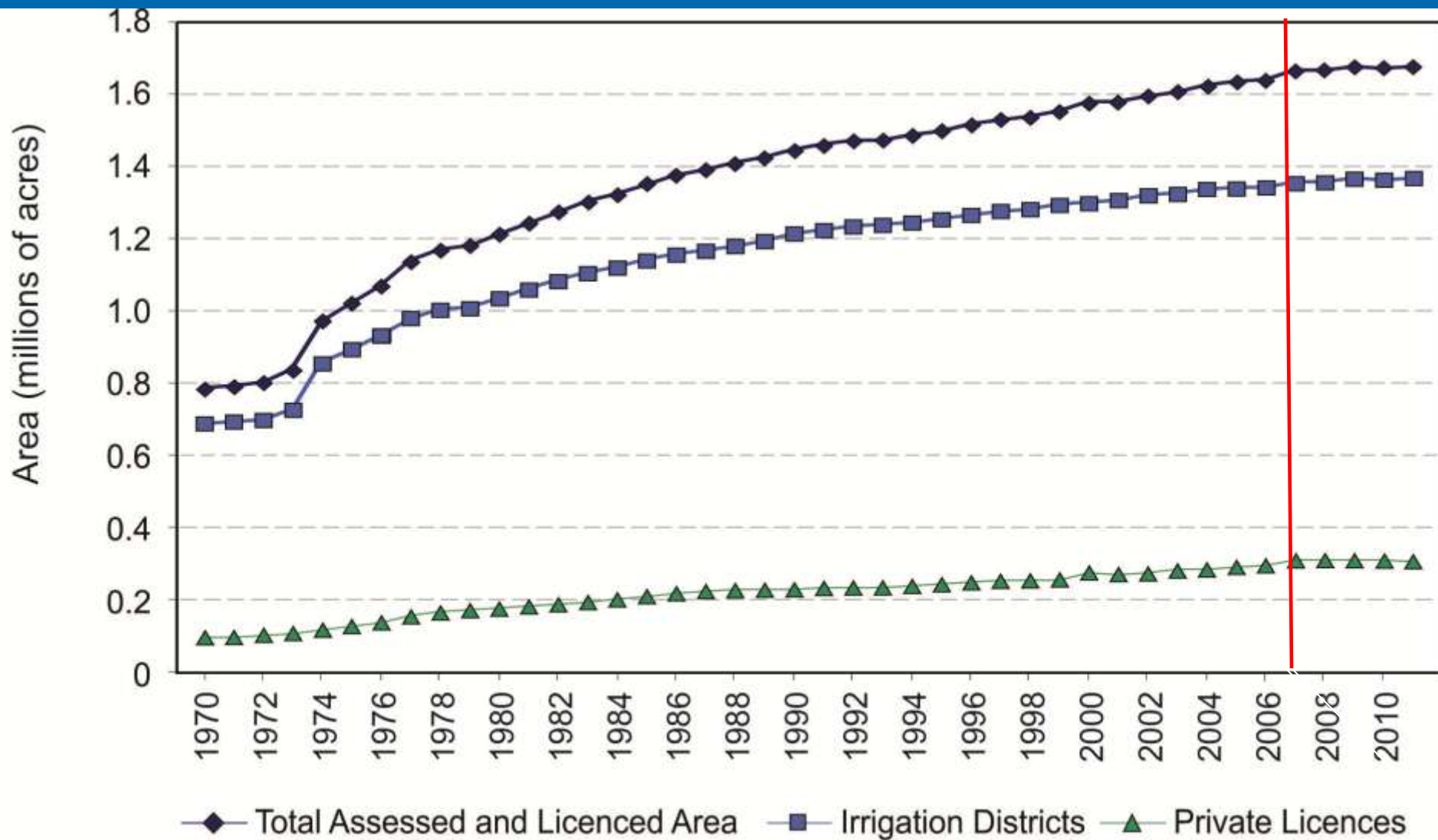
Irrigated Food Production

- **About 40% of the world's food, and 60% of cereal production is from irrigated lands.**
- **Irrigation makes up about 17% of the total arable land base.**
- **It is estimated that up to 80% of future food requirements will be met by irrigation.**



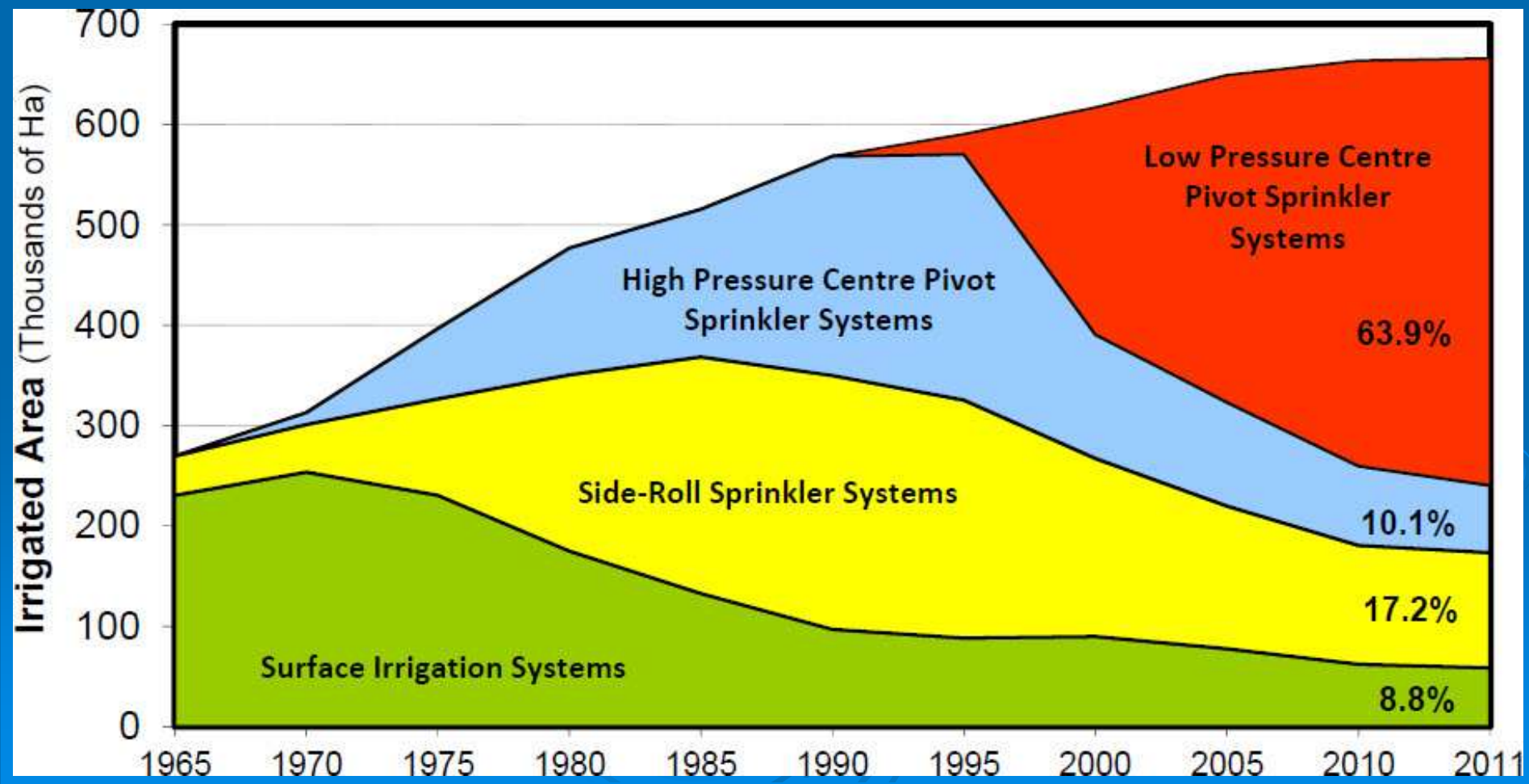
Implications and Opportunities for Alberta's Irrigation Industry





Growth in Irrigation in Alberta (1970 - 2011)

Changes On-Farm Systems.



Capital Investment in Irrigation Infrastructure

Alberta Government, Irrigation Districts and Irrigation Producers

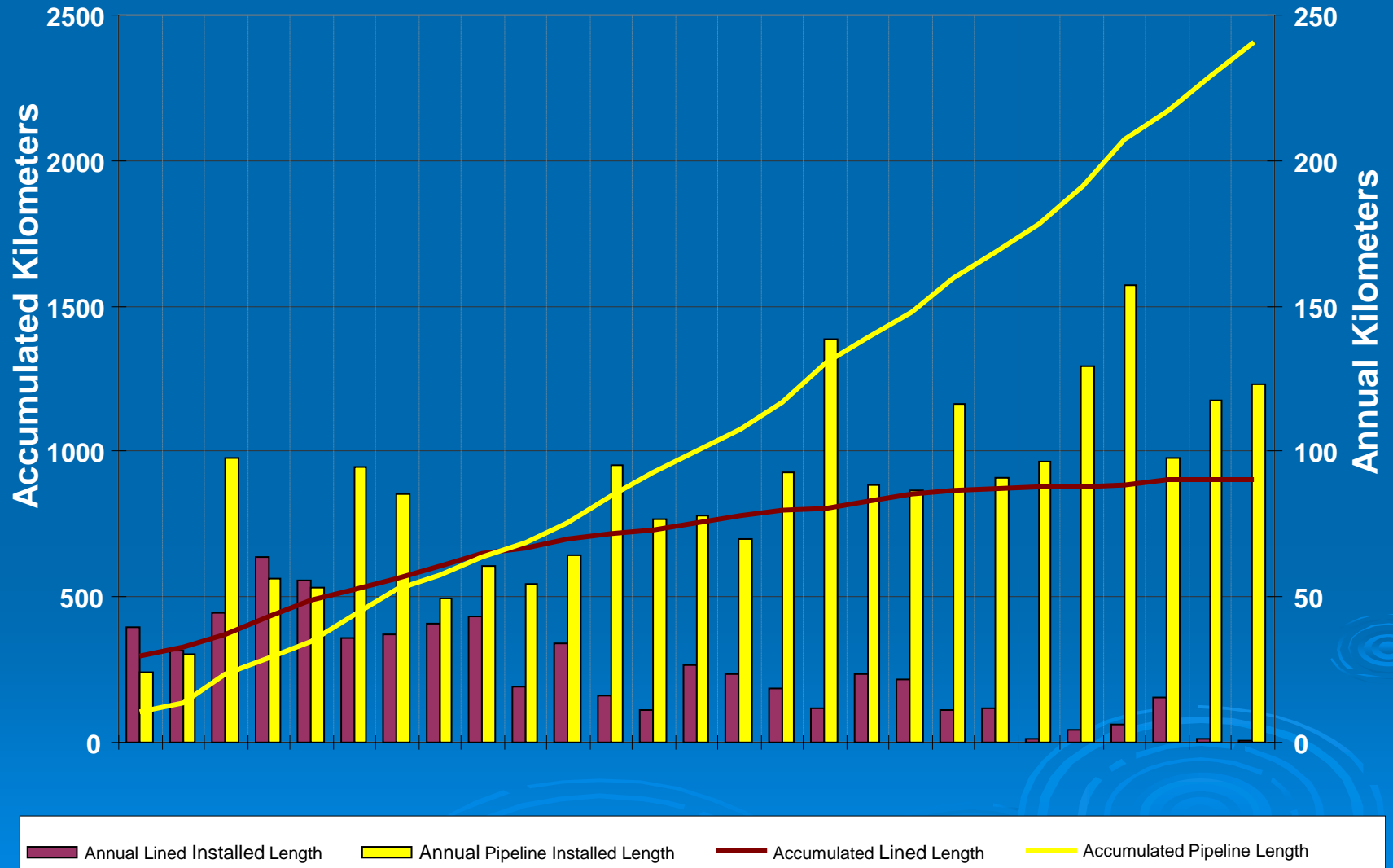
1969 - 2011



Private On-Farm Investment

~ \$1.34 Billion

IRP Lined Canals & Pipelines All Districts





Capital Investment in Irrigation Infrastructure

Alberta Government & Irrigation Districts (Irrigation Producers)

ICW / IREP / IRP - 1969 - 2012

Government Contribution = approx. **\$825 Million**

Irrigation District / Producers = approx. **\$200 Million**

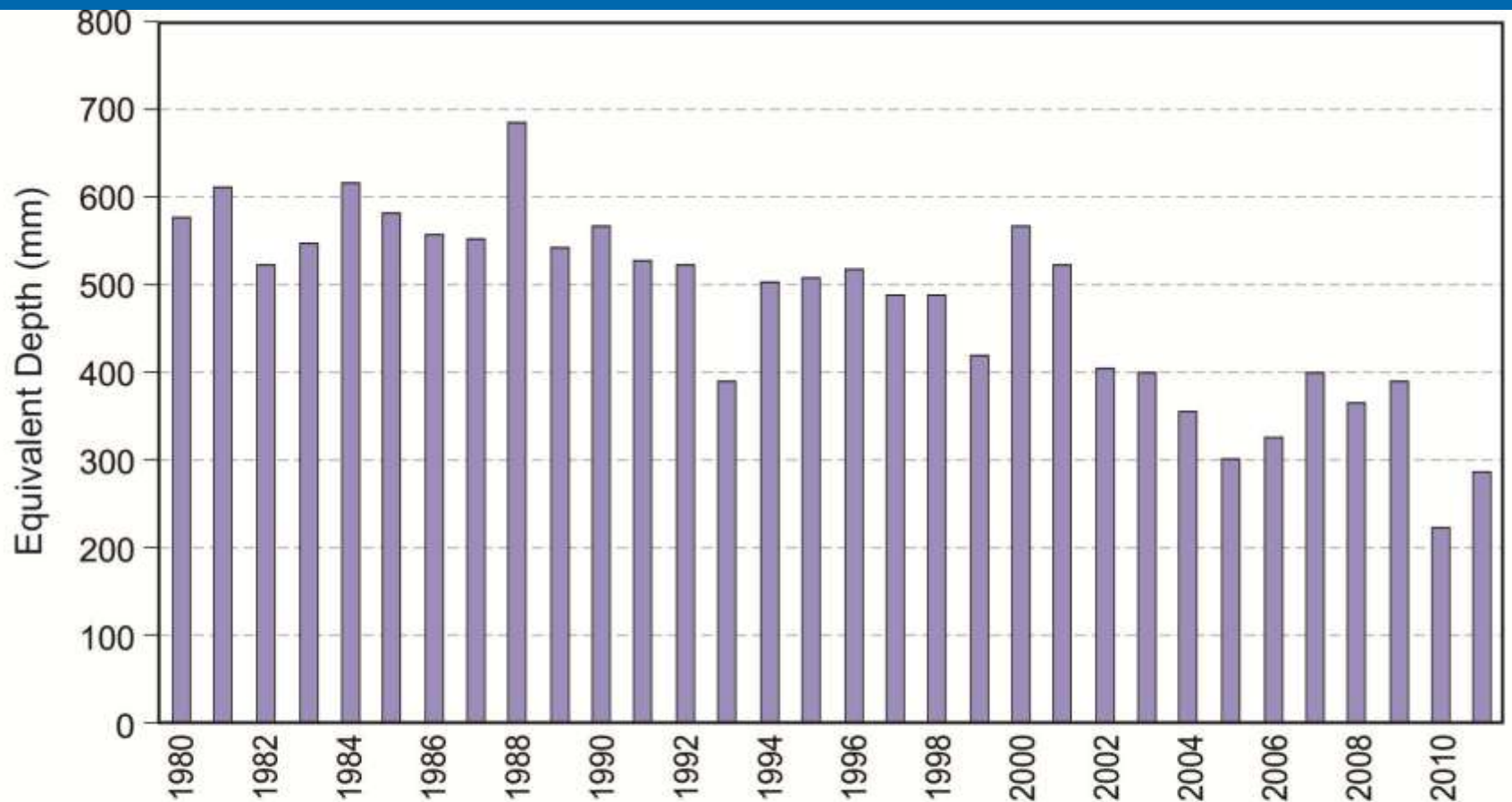
TOTAL Capital Investment = approx. **\$1.02 Billion**

How Does Canada/Alberta Compare to Other Areas of the World?

- The Irrigation Association Journal published a table of data for the countries of the world showing the percentage of irrigated land that is serviced with efficient irrigation systems. Ranking countries that irrigate as much or more land than Canada, **Canada ranks 2nd in the world for use of efficient systems. Alberta constitutes 63% of Canada's irrigation.**

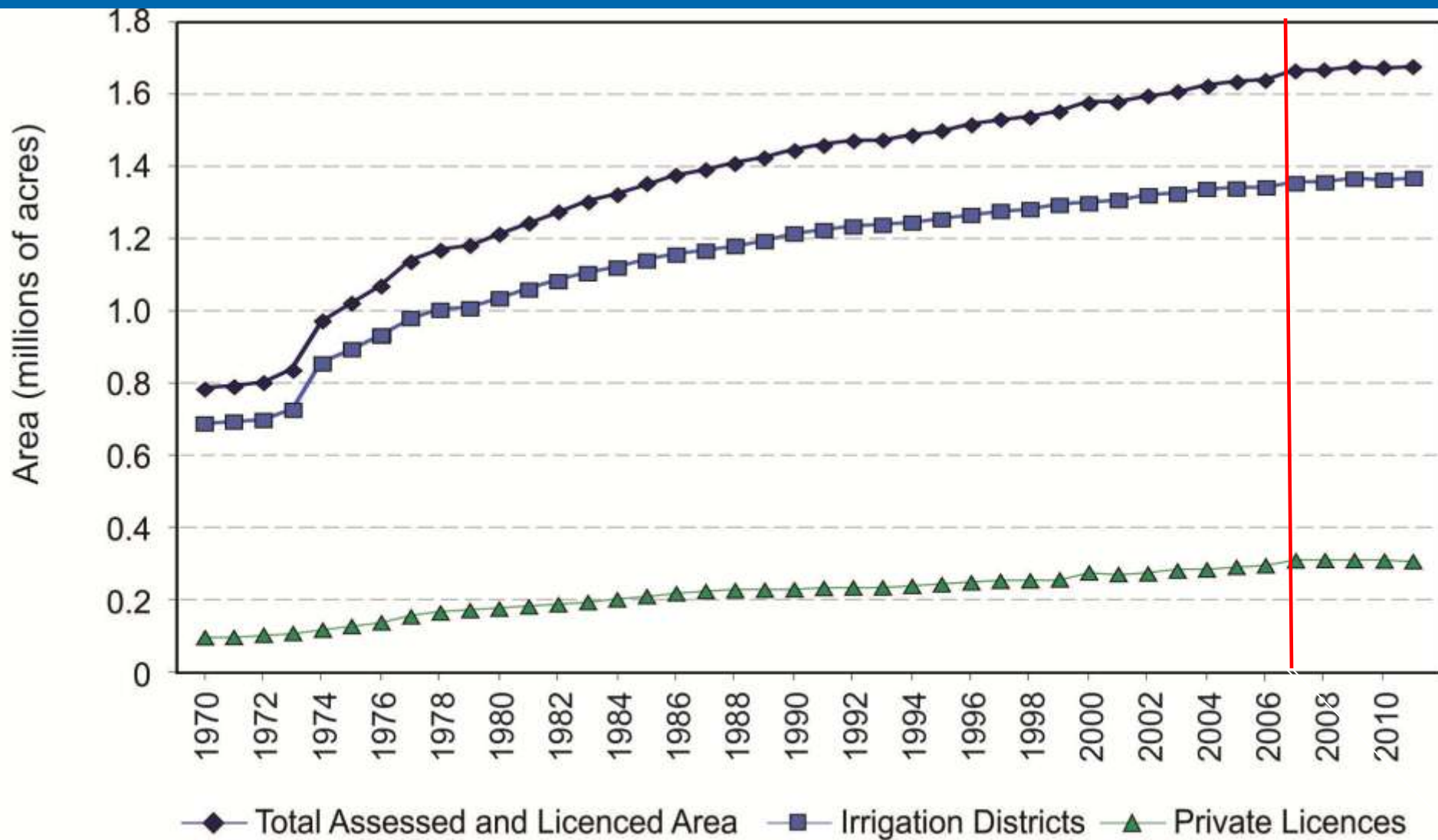


Reduce diversion per unit area



Irrigation Districts Gross Diversion Equivalent Depth (1980 - 2011)

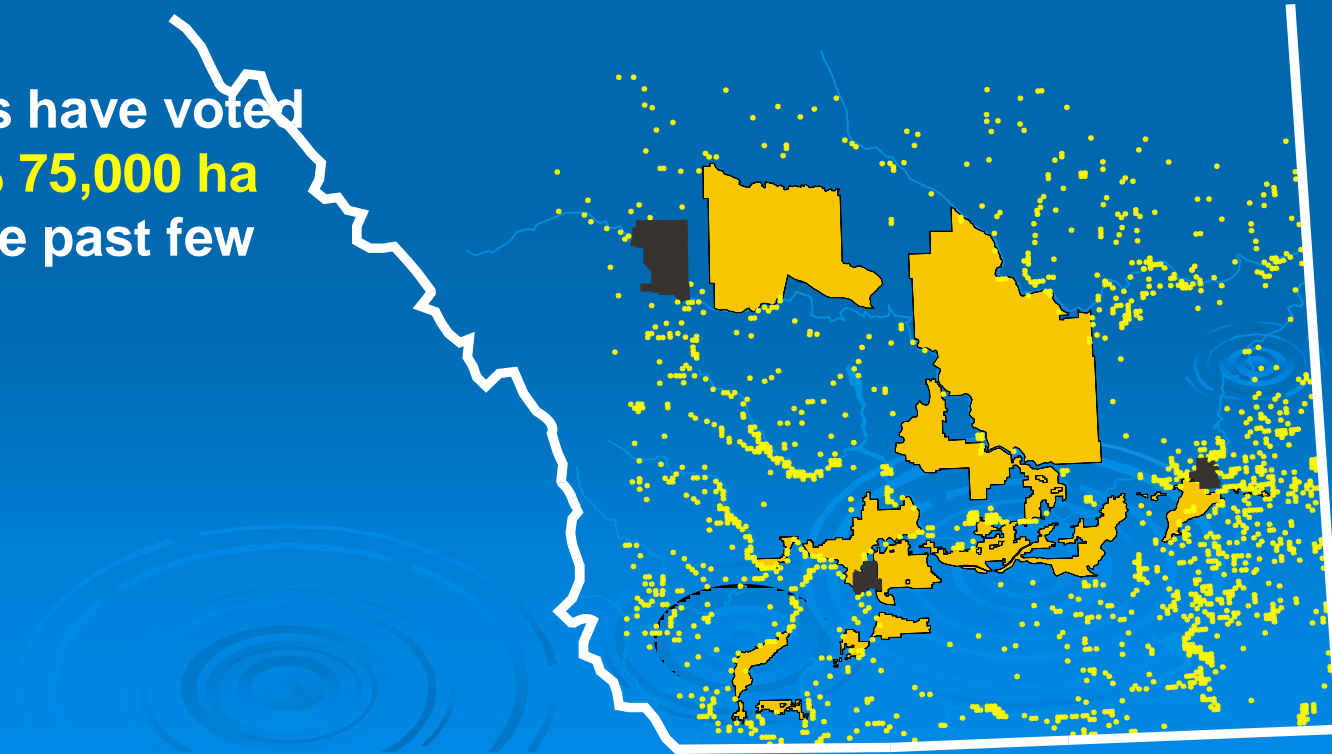
Note: Irrigation district equivalent depth is the annual gross diversion of water (into the works of all 13 irrigation districts), divided by the area actually irrigated. However, this "depth" also includes water which may have accounted as net gains in reservoir storage, water diverted for other uses such as domestic, municipal, other agricultural, industrial, recreational and habitat enhancement purposes.



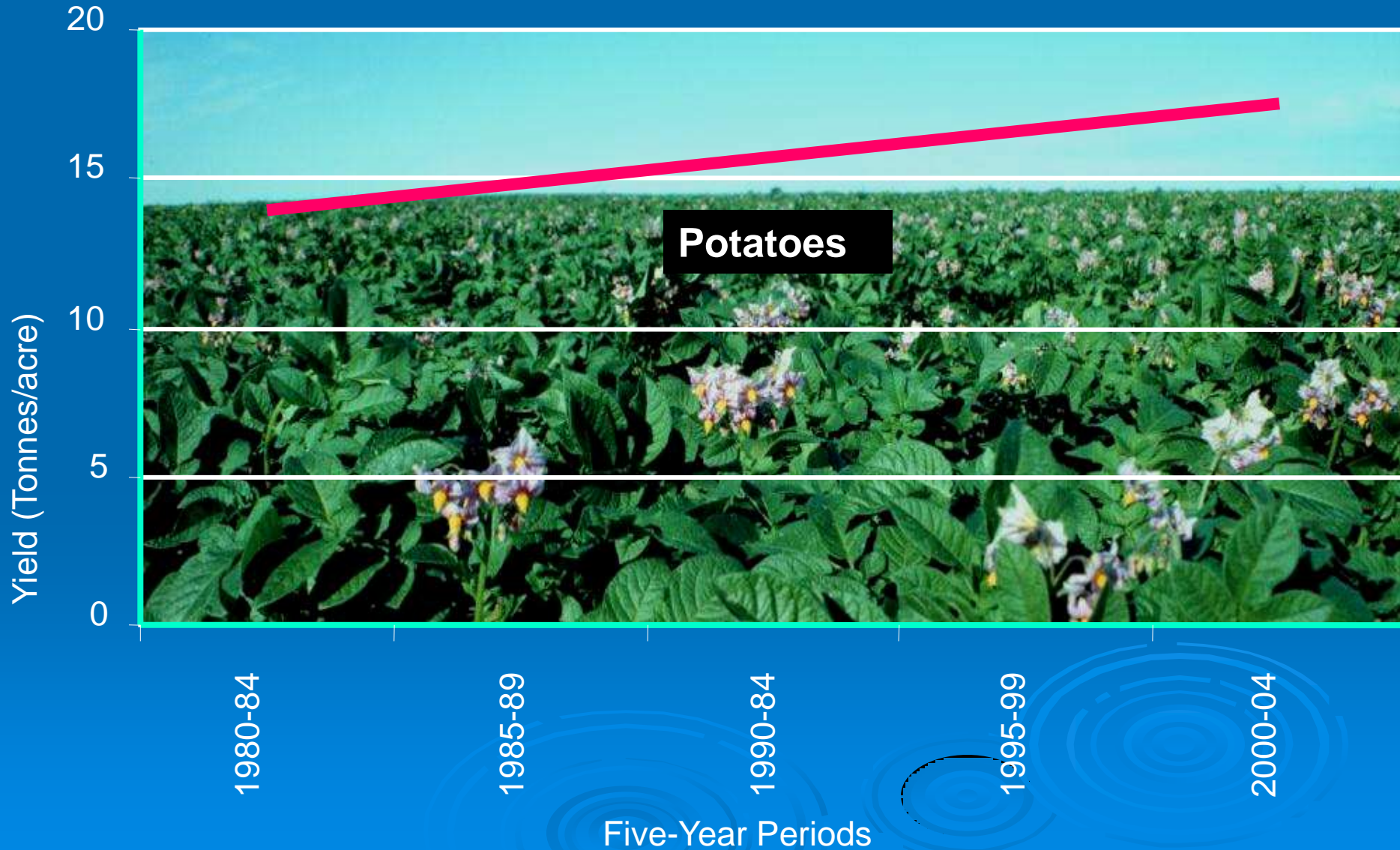
Growth in Irrigation in Alberta (1970 - 2011)

Irrigation Expansion Potential using existing allocations

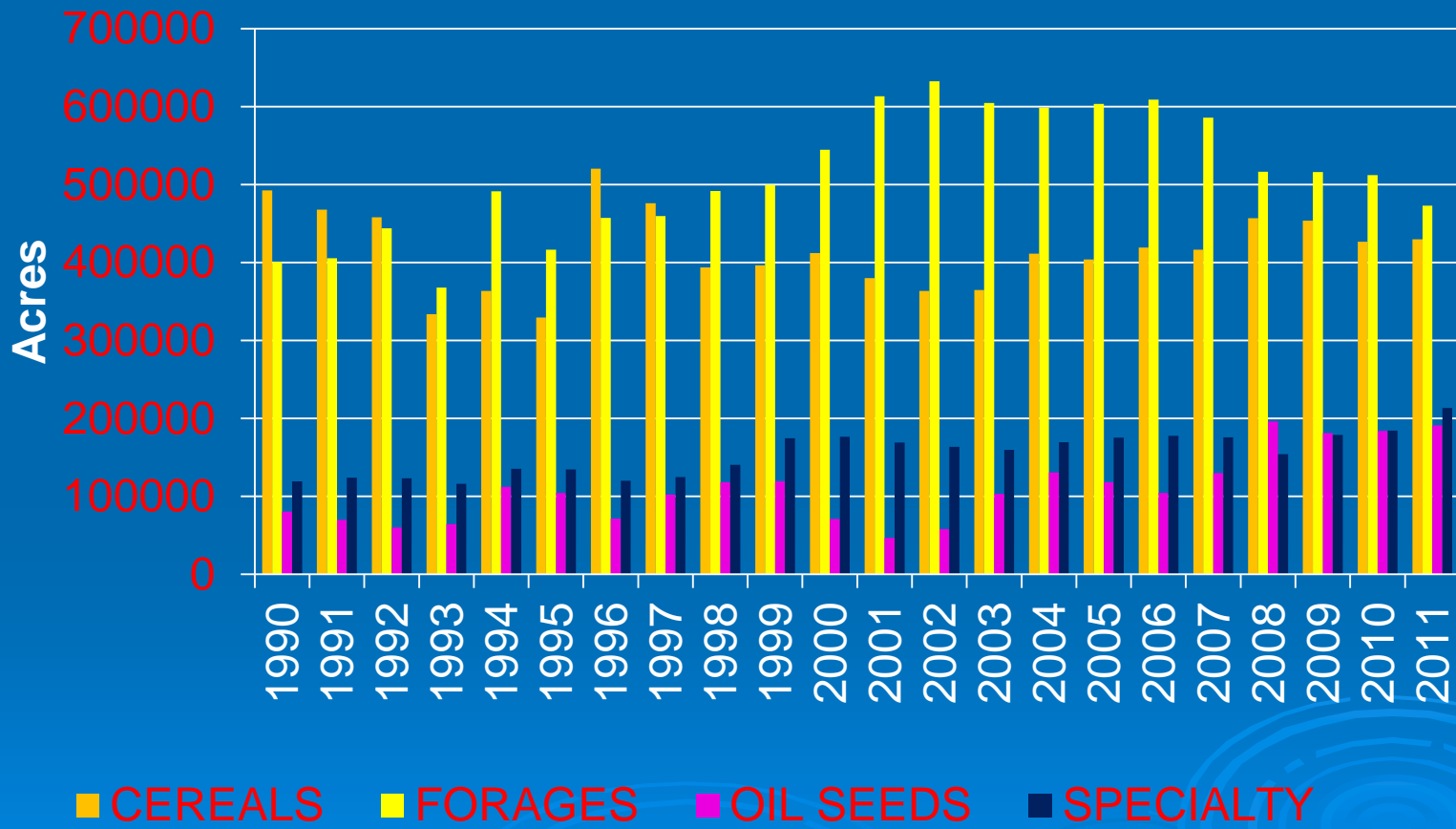
- About 640,000 ha (1.58 m ac.) of land is currently irrigated in both organized districts and private schemes.
- Irrigation Districts have voted to **expand by 13% 75,000 ha (187,000 ac.)** in the past few years



Increasing Crop Yields



Changes in Crops Grown



Alberta's Economy

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Canada Access to China Alfalfa/Forage

- China grocery market estimated at \$1.0 Trillion
- China milk production to double by 2015
- Milk value in China estimated at \$22.1 Billion
- Premier's Trade Mission to India



Thank You

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